IN THE CLAIMS:

A complete listing of the claims is set forth below. Please amend the claims as follows:

1.   (Currently Amended) A computer-implemented method for estimating base sales volume, the method being performed using one or more processing units, the method comprising:

using one or more processing units, accessing an input data series for a series of time periods, the input data for each time period comprising at least an actual sales volume for the time period, the actual sales volumes for the series of time periods collectively comprising an actual sales volume series;

within each iteration of an iterative process, wherein the iterative process involves a nonlinear regression process:

using one or more processing units, applying a low-pass filter to the actual sales volumes series to extract low frequency components representing a base sales volume series for the iteration;

using one or more processing units, determining a locally optimal base sales volume series for the iteration according to the input data series;

using one or more processing units, selecting a globally optimal base sales volume series from among the locally optimal base sales volume series determined using the iterative process, the globally optimal base sales volume series comprising an estimated base sales volume for each time period; and

using one or more processing units, making one or more of the estimated base sales volumes available for use in connection with at least one business analysis, analysis.

wherein determining the locally optimal base sales volume series for an iteration comprises:

solving a regression equation to determine values for estimated coefficients associated with an incremental price reduction series and one or more promotion variable series;

computing an error associated with use of the estimated coefficients; and

to reduce bias, considering the error in selecting the locally optimal base sales volume series.

2. **(Original)** The method of Claim 1, wherein the iterative process is performed according to a smoothing parameter that is independent of time periods associated with the input data series.

3. **(Original)** The method of Claim 1, wherein:

a first parameter specifies the number of values the smoothing parameter can have, an iterative loop being performed within the iterative process for each value of the smoothing parameter; and

a second parameter specifies the number of iterations to be performed, inside the iterative loop, for each value of the smoothing parameter.

4. **(Original)** The method of Claim 3, wherein the smoothing parameter will have approximately ten thousand values according to the first parameter and, according to the second parameter, approximately three iterations will be performed inside the iterative loop for each value of the smoothing parameter.

5. **(Original)** The method of Claim 1, wherein:

the input data series is stored in a multi-dimensional database comprising at least product, geography, and time dimensions; and

each input data value in the input data series is associated with a particular intersection of members within the product, geography, and time dimensions.

6. **(Original)** The method of Claim 1, wherein the input data for each time period further comprises:

an incremental price reduction value associated with one or more promotional tactics conducted in the time period, the incremental price reduction values for the time periods collectively comprising an incremental price reduction series; and

values for one or more promotion variables that reflect whether associated promotional tactics are conducted during the time period or reflect relative weights

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accorded associated promotional tactics conducted during the time period, the values for each promotion variable collectively comprising a promotion variable series for that promotion variable, one or more of these promotional tactics selected from the group consisting of:

a temporary price reduction for the item;

a promotional insert packaged with the item;

a promotional display for the item; and

an advertisement for the item.

7.   (Currently Amended) The method of Claim 1, wherein ~~determining a locally optimal base sales volume series for an iteration comprises solving a~~ the regression equation ~~that~~ involves the actual sales volume series, the base sales volume series resulting from application of the low-pass filter, [[an]] the incremental price reduction series, and the one or more promotion variable series.

8.   (Cancelled)

9.   (Original) The method of Claim 8, wherein selecting the globally optimal base sales volume series comprises:

eliminating all the locally optimal base sales volume series having negative values for the estimated coefficient for the incremental price reduction series; and

of the remaining locally optimal base sales volume series, selecting the locally optimal base sales volume series for which an R^2 statistical measure has a maximum value.

10.   (Previously Presented) The method of Claim 8, wherein selecting the globally optimal base sales volume series comprises:

eliminating all the locally optimal base sales volume series for which an R^2 statistical measure has a value less than approximately 0.2; and

of the remaining locally optimal base sales volume series, selecting the locally optimal base sales volume series having the estimated coefficient for the incremental price reduction series with least negative value.

11. **(Original)** The method of Claim 8, wherein less than approximately thirty-five percent of the values of the estimated coefficients have incorrect signs indicating a decrease in base sales volume when in reality an increase should occur.

12. **(Original)** The method of Claim 8, wherein approximately ninety-five percent of the values of the estimated coefficients have correct signs indicating an increase in base sales volume when in reality an increase should occur.

13. **(Original)** The method of Claim 1, wherein the business analysis comprises the calculation of increased sales volume associated with a promotional tactic based on one or more estimated base sales volumes.

14. **(Original)** The method of Claim 1, wherein the business analysis is selected from the group consisting of:
promotional planning;
demand forecasting;
optimal mark down scheduling;
complement analysis; and
cannibalization analysis.

15. **(Currently Amended)** A system for estimating base sales volume, comprising:
a database operable to store an input data series for a series of time periods, the input data for each time period comprising at least an actual sales volume for the time period, the actual sales volumes for the series of time periods collectively comprising an actual sales volume series;
one or more processors collectively operable to:
access the input data series;
within each iteration of an iterative process that involves a nonlinear regression process:
apply a low-pass filter to the actual sales volumes series to extract low frequency components representing a base sales volume series for the iteration;

determine a locally optimal base sales volume series for the iteration according to the input data series;

select a globally optimal base sales volume series from among the locally optimal base sales volume series determined using the iterative process, the globally optimal base sales volume series comprising an estimated base sales volume for each time period; and

make one or more of the estimated base sales volumes available for use in connection with at least one business analysis, ~~analysis.~~

wherein determining the locally optimal base sales volume series for an iteration comprises:

solving a regression equation to determine values for estimated coefficients associated with an incremental price reduction series and one or more promotion variable series;

computing an error associated with use of the estimated coefficients; and

to reduce bias, considering the error in selecting the locally optimal base sales volume series.

16.   (Original) The system of Claim 15, wherein the processor performs the iterative process according to a smoothing parameter which is independent of time periods associated with the input data series.

17.   (Original) The system of Claim 15, wherein:

a first parameter specifies the number of values the smoothing parameter can have, an iterative loop being performed within the iterative process for each value of the smoothing parameter; and

a second parameter specifies the number of iterations to be performed, inside the iterative loop, for each value of the smoothing parameter.

18.   (Original) The system of Claim 17, wherein the smoothing parameter will have approximately ten thousand values according to the first parameter and, according to the second parameter, approximately three iterations will be performed inside the iterative loop for each value of the smoothing parameter.

19.   (Original) The system of Claim 15, wherein:

the database is multi-dimensional and comprises at least product, geography, and time dimensions; and

each input data value in the input data series is associated with a particular intersection of members within the product, geography, and time dimensions.

20.   (Original) The system of Claim 15, wherein the input data for each time period further comprises:

an incremental price reduction value associated with one or more promotional tactics conducted in the time period, the incremental price reduction values for the time periods collectively comprising an incremental price reduction series; and

values for one or more promotion variables that reflect whether associated promotional tactics are conducted during the time period or reflect relative weights accorded associated promotional tactics conducted during the time period, the values for each promotion variable collectively comprising a promotion variable series for that promotion variable, one or more of these promotional tactics selected from the group consisting of:

a temporary price reduction for the item;

a promotional insert packaged with the item;

a promotional display for the item; and

an advertisement for the item.

21.   (Currently Amended) The system of Claim 15, wherein ~~determining a locally optimal base sales volume series for an iteration comprises solving a~~ the regression equation ~~that~~ involves the actual sales volume series, the base sales volume series resulting from application of the low-pass filter, [[an]] the incremental price reduction series, and the one or more promotion variable series.

22.   (Cancelled)

23.   (Original) The system of Claim 22, wherein selecting the globally optimal base sales volume series comprises:

eliminating all the locally optimal base sales volume series having negative values for the estimated coefficient for the incremental price reduction series; and

of the remaining locally optimal base sales volume series, selecting the locally optimal base sales volume series for which an R^2 statistical measure has a maximum value.

24.   **(Previously Presented)** The system of Claim 22, wherein selecting the globally optimal base sales volume series comprises:

eliminating all the locally optimal base sales volume series for which an R^2 statistical measure has a value less than approximately 0.2; and

of the remaining locally optimal base sales volume series, selecting the locally optimal base sales volume series having the estimated coefficient for the incremental price reduction series with least negative value.

25.   **(Original)** The system of Claim 22, wherein less than approximately thirty-five percent of the values of the estimated coefficients have incorrect signs indicating a decrease in base sales volume when in reality an increase should occur.

26.   **(Original)** The system of Claim 22, wherein approximately ninety-five percent of the values of the estimated coefficients have correct signs indicating an increase in base sales volume when in reality an increase should occur.

27.   **(Original)** The system of Claim 15, wherein the business analysis comprises the calculation of increased sales volume associated with a promotional tactic based on one or more estimated base sales volumes.

28.   **(Original)** The system of Claim 15, wherein the business analysis is selected from the group consisting of:

promotional planning;

demand forecasting;

optimal mark down scheduling;

complement analysis; and

cannibalization analysis.

29.   (Currently Amended) Software for estimating base sales volume, the
software embodied in a computer-readable medium and when executed by a computer
operable to:

access an input data series for a series of time periods, the input data for each time
period comprising at least an actual sales volume for the time period, the actual sales
volumes for the series of time periods collectively comprising an actual sales volume
series;

within each iteration of an iterative process that involves a nonlinear regression
process:

apply a low-pass filter to the actual sales volumes series to extract low
frequency components representing a base sales volume series for the iteration;

determine a locally optimal base sales volume series for the iteration
according to the input data series;

select a globally optimal base sales volume series from among the locally optimal
base sales volume series determined using the iterative process, the globally optimal base
sales volume series comprising an estimated base sales volume for each time period; and

make one or more of the estimated base sales volumes available for use in
connection with at least one business analysis, analysis.

wherein determining the locally optimal base sales volume series for an iteration
further comprises:

solving a regression equation to determine values for estimated coefficients
associated with an incremental price reduction series and one or more promotion
variable series;

computing an error associated with use of the estimated coefficients; and

to reduce bias, considering the error in selecting the locally optimal base
sales volume series.

30.   (Original) The software of Claim 29, wherein the iterative process is performed according to a smoothing parameter which is independent of time periods associated with the input data series.

31.   (Original) The software of Claim 29, wherein:

a first parameter specifies the number of values the smoothing parameter can have, an iterative loop being performed within the iterative process for each value of the smoothing parameter; and

a second parameter specifies the number of iterations to be performed, inside the iterative loop, for each value of the smoothing parameter.

32.   (Original) The software of Claim 31, wherein the smoothing parameter will have approximately ten thousand values according to the first parameter and, according to the second parameter, approximately three iterations will be performed inside the iterative loop for each value of the smoothing parameter.

33.   (Original) The software of Claim 29, wherein:

the input data is stored in a multi-dimensional database comprising at least product, geography, and time dimensions; and

each input data value in the input data series is associated with a particular intersection of members within the product, geography, and time dimensions.

34.   (Original) The software of Claim 29, wherein the input data for each time period further comprises:

an incremental price reduction value associated with one or more promotional tactics conducted in the time period, the incremental price reduction values for the time periods collectively comprising an incremental price reduction series; and

values for one or more promotion variables that reflect whether associated promotional tactics are conducted during the time period or reflect relative weights accorded associated promotional tactics conducted during the time period, the values for each promotion variable collectively comprising a promotion variable series for that promotion variable, one or more of these promotional tactics selected from the group

consisting of: .

a temporary price reduction for the item;

a promotional insert packaged with the item;

a promotional display for the item; and

an advertisement for the item.

35.   (Currently Amended) The software of Claim 29, wherein ~~determining a locally optimal base sales volume series for an iteration comprises solving a~~ the regression equation ~~that~~ involves the actual sales volume series, the base sales volume series resulting from application of the low-pass filter, [[an]] the incremental price reduction series, and the one or more promotion variable series.

36.   (Cancelled)

37.   (Original) The software of Claim 35, wherein selecting the globally optimal base sales volume series comprises:

eliminating all the locally optimal base sales volume series having negative values for the estimated coefficient for the incremental price reduction series; and

of the remaining locally optimal base sales volume series, selecting the locally optimal base sales volume series for which an R statistical measure has a maximum value.

38.   (Previously Presented) The software of Claim 35, wherein selecting the globally optimal base sales volume series comprises:

eliminating all the locally optimal base sales volume series for which an statistical measure has a value less than approximately 0.2; and

of the remaining locally optimal base sales volume series, selecting the locally optimal base sales volume series having the estimated coefficient for the incremental price reduction series with least negative value.

39.   (Original) The software of Claim 35, wherein less than approximately thirty-five percent of the values of the estimated coefficients have incorrect signs indicating a decrease in base sales volume when in reality an increase should occur.

40.   (Original) The software of Claim 35, wherein approximately ninety-five percent of the values of the estimated coefficients have correct signs indicating an increase in base sales volume when in reality an increase should occur.

41.   (Original) The software of Claim 29, wherein the business analysis comprises the calculation of increased sales volume associated with a promotional tactic based on one or more estimated base sales volumes.

42.   (Original) The software of Claim 29, wherein the business analysis is selected from the group consisting of:
    promotional planning;
    demand forecasting;
    optimal mark down scheduling;
    complement analysis; and
    cannibalization analysis.

43.   (Currently Amended) A system for estimating base sales volume, comprising:
    data storage means for storing an input data series for a series of time periods, the input data for each time period comprising at least an actual sales volume for the time period, the actual sales volumes for the series of time periods collectively comprising an actual sales volume series; and
    processing means for:
        accessing the input data series;
        within each iteration of an iterative process that involves a nonlinear regression process:
            applying a low-pass filter to the actual sales volumes series to extract low frequency components representing a base sales volume series for the iteration;

determining a locally optimal base sales volume series for the iteration according to the input data series;

selecting a globally optimal base sales volume series from among the locally optimal base sales volume series determined using the iterative process, the globally optimal base sales volume series comprising an estimated base sales volume for each time period; and

making one or more of the estimated base sales volumes available for use in connection with at least one business analysis, analysis.

wherein determining the locally optimal base sales volume series for an iteration further comprises:

solving a regression equation to determine values for estimated coefficients associated with an incremental price reduction series and one or more promotion variable series;

computing an error associated with use of the estimated coefficients; and

to reduce bias, considering the error in selecting the locally optimal base sales volume series.

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